the commencement of tabes. (In one case it occurred twenty-five, in other cases five, years after.)

3. Its occurrence does not depend upon a degeneration of the auditory nerve, analogous to that of the optic nerve; the physiological function of the nerve is not altered.

4. Its occurrence can be logically attributed to a lesion of certain fibres of the auditory nerve which belong to the semicircular canals, and constitute the nerve for the *sense of space*.

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## d.—MENTAL PATHOLOGY.

THE NATURE OF INSANITY.—Dr. J. Hughlings Jackson (Popular Science Monthly, June, 1884) says: "Disease is said to cause the symptoms of insanity. I submit that disease only produces negative mental symptoms answering to dissolution, and that all elaborate positive mental symptoms (illusions, hallucinations, delusions, and extravagant conduct) are the outcome of activity of nervous elements untouched by any pathological process—that they arise during activity on the lower level of evolution remaining. The principle may be illustrated in another way without undue recapitulation. Starting this time with health, the assertion is that each person's normal thought and conduct are, or signify, survivals of the fittest states of what we may call the topmost layer of his highest centres, the normal highest level of evolution. Now, suppose that from disease the normal highest level of evolution (the topmost layer) is rendered functionless. This is the dissolution, to which answer the negative symptoms of the patient's insanity. I contend that his positive mental symptoms are still the survival of his fittest states—are survivals on the lower, but then highest, level of evolution. The most absurd mentation and most extravagant actions in insane people are the survival of their fittest states. I say 'fittest' not 'best'; in this connection the evolutionist has nothing to do with good or bad. We need not wonder that an insane man believes in what we call his illusions; they are his perceptions. His illusions, etc., are not caused by disease, but are the outcome of activity of what is left of him (of what disease has spared), of all there then is of him; his illusions, etc., are his mind." There are both truth and error in this statement of Dr. Jackson. That the nervous elements are entirely unaffected pathologically in the production of hallucinations, etc., cannot, strictly speaking, be admitted; that they are not destructively involved is true. As was pointed out some years ago (Journal of Nervous and Mental Disease, January, 1878), in combating the statement of the Utica school of alienists that hallucinations were due to destruction of nerve cells and fibres, hallucinations imply an anatomically intact receptive mechanism, whose function is temporarily perverted. Stripped of evolutionary verbiage, the views of Dr. Hughlings Jackson, expressed in the extract cited, simply amount to the same as the

statement made by hundreds of alienists since the dawn of psychiatry, that delusions, hallucinations, insane conduct, etc., result from inhibitions having been removed by disease. Insanity removes the chains, and the savage in man springs to the surface.

HALLUCINATIONS SIMULATED BY A LUNATIC.—It will be remembered that some of the French alienists have reported cases in which auditory hallucinations were removed by the treatment of aural diseases. A significant commentary on the results obtained in such cases is to be found in the case recently reported by Magnan (Fournal de Médecine et de Chirurgie, May, 1884). A twenty-three-year-old patient, of unfavorable hereditary antecedents, was attacked in his fifteenth year by an intense otorrhea; then after an attack of typhoid fever at the age of sixteen he became perverse, errabund, and violent, and after several robberies was placed in an hospital for the insane. Examined by alienists he complained of noises in the ears, and stimulated by leading questions stated that he heard voices on the affected side. He had been considered as a case of hallucinations due to aural lesions, and as such had been presented to several learned societies. His otorrhea having been somewhat ameliorated by treatment, he soon announced that the voices had begun to disappear; the otorrhea still persisted, but the hallucinations completely disappeared, and the patient stated that the details he had given were purely imaginary. He ceased to imagine hallucinations when he feared his deception would be deteted.

PARETIC DEMENTIA IN A FOURTEEN-YEAR-OLD GIRL.—Leidesdorf (Centralblatt für Nervenheilkunde, June 15, 1884) has had under observation a case of paretic dementia in a mentally well developed girl of fourteen, in whom the mental and physical symptoms were well marked, and who died from the marasmus consequent on this psychosis. On autopsy the brain presented pathological characteristic changes of paretic dementia. The case is in many ways exceptional. It is, however, by no means improbable that, under the present system of stimulating emulation at school, such cases will become much less infrequent than they are at present, since children will be subjected to one of the most efficient causes of the psychosis, mental worry, in the most decided manner.

TROPHIC CHANGES ABOUT THE NAILS OF PARETIC DEMENTS.—Dr. Régis (Gazette Méd. de Paris, No. 11, 1884) calls attention to the fact that trophic changes in the nails and thereabout, similar to those leading to the fall of the nails and dystrophy found in locomotor ataxia, are sometimes detectable in cases of paretic dementia.

ALCOHOL-CAUSED INSANITY IN SOUTHERN AUSTRIA. -- Dr.

Pilkousky (Wiener Klinik, November, 1883) states that the statistics of the Lower Austria Hospital for the Insane show that of the patients admitted for the past twelve years 25.3 per cent. of the male cases and 2.7 of the female cases had their insanity caused by alcohol.

Brain Weight in the Insane.—Amadei (*La Psichiatria*, I., 1884) has weighed five hundred brains of insane persons, and gives the following table:

Psychosis.								Men.	Women.
								grams.	grams.
Imbecility								1297	1111
Epilepsy							٠.	1296	1185
Hysteria							.		1223
Paranoia							.	1352	1336
Periodical i	insani	ly					. 1	1418	1254
Mania .		٠.					. !	1404	1226
Melancholia	a .						. 1	1395	1213
Terminal dementia							. 1	1333	1111
Alcoholism	us							1348	1165
Paretic dem	entia						. 1	1300	1075
Sane people	e (Te	ıchin	i) .				.	1356	1235

RUPTURE OF THE HEART IN THE INSANE.—An interesting comment on the views of Dr. Salemi-Pace is furnished by the cases reported by Dr. A. F. Mickle (Edinburgh Medical Fournal, February, 1884). The first patient, æt. sixty-six, had been twentyseven years insane. There was no evidence of cardiac lesion until within a few months of the man's death, when a diffused apex beat and faint cardiac sounds were discovered; the first sound was impure, the second accentuated. He suddenly complained of precordial pain, dyspnoa, and vertigo, and died the next day. On autopsy a discolored spot was found on the left ventricle about two inches long and an inch broad, due to extravasation into the walls of the ventricle, which was so much injured that blood could readily extravasate. The ventricle wall was the seat of degeneration. The second case, a seventy-year-old female, a senile dement, was, while perfectly quiet, suddenly seized by severe precordial pain and died in a few minutes. On autopsy a rupture in the wall of the left ventricle was found. The heart generally was in a state of degeneration. The third case, a seventy-year-old, terminal dement, presented similar cardiac symptoms to the first case, and one morning, on attempting to rise, was seized with precordial pain, and very soon died. An inch-and-a-half long ragged rent was found in the right ventricle. There was cardiac dilatation and fatty degeneration. Dr. Mickle states that these cases present very distinct evidences of how insidiously degenerations of a grave character may progress in the

insane and not produce any special symptoms to attract attention. These cases, in his opinion, show the necessity of the most gentle treatment of the insane with cardiac disease.

ERGOTIN IN PARETIC DEMENTIA.—Girma (*L'Encéphale*, No. 2, 1884) states that ergotin will be found of value at the outset of paretic dementia, particularly in the congestive attacks. Later its effects are chiefly sedative. Dr. Girma seems unacquainted with the fact that the drug has been found of use in the apoplectiform and epileptiform attacks of the disease (Journal of Nervous and Mental Disease, Oct., 1880). Schüle had long ago shown that ergotin was of value in the congestive attacks of the onset of the disease.

OÖPHORECTOMY AND INSANITY.—Dr. B. F. Dawson (New York Medical Fournal, June 21, 1884) has reported the case of a thirty-seven-year-old married woman; a multipara whose last labor had been complicated by post-partum hemorrhage. The case had presented symptoms of depression eight years, and had attempted suicide. She had no hallucinations; cried a good deal; would not answer questions, but often complained of pain in the head, breast, and pelvis. Dr. Dawson found ovarian tenderness, and performed oophorectomy. Recovery from the operation was rapid, and the patient "improved" mentally; she cried less. Dr. Lee, in discussing this case, said that it reminded him of the two cases of supposed insanity described and operated upon by Dr. Robt. Battey. The patients recovered several months after the operation, which was destitute of immediate effects. Dr. Battey ascribed this to the fact that when the nervous system was so long affected as to cause insanity, it required some time to regain its normal state. (It is almost unnecessary to state that on reading this the fact is apparent that Dr. Battey is not an alienist.) Probably some cases bordering on insanity disappeared without operative interference. Dr. W. M. Chamberlain said that to a lady under his care for a long time he had proposed oöphorectomy; the operation was not performed. The patient became suicidal and homicidal, and hospital treatment was necessary. She remained in the hospital six months; was not recorded recovered when discharged, but had since become perfectly well. Dr. W. M. Polk did not think the question could be considered settled. There were many cases of melancholia, complicated by uterine disease, in which the patient got well without uterine treatment. Interference with menstruation was one of the commonest incidents in the psychoses, and seemed to be related to ovarian disturbance when such was not the case. He had a patient with ovarian prolapse and uterine retroversion, who, three years ago, shot herself. She recovered, and is now in perfect mental health, despite the persistence of the uterine and ovarian displacement. These last statements show that there are gynecologists who are not biassed by the doctrinaires who have discussed the relations of gynecology to psychiatry.

Sense Inter-Association.—A question related to the pathogeny of hallucinations is raised by the cases described by Hilbert (Klinische Monatsblatt für Augenheilkunde, Jan., 1884). A twenty-four-year-old woman of healthy family and free from nervous disease had experienced from an excitant to one special sense double sensations. Unpleasant odors and tastes produced sensations of color; in one case, unpleasant beer caused sensations of brown, and in another a sensation of gray. The odor of old cheese caused a sensation of brownish-green; its taste a sensation of yellow. Certain melodies produced sensations of form, and certain sounds sensations of the forms of persons.

COMBINED PSYCHOSES.—Dr. F. Siemens (Neurologisches Centralblatt, May 15, 1884) states that there are two great classes of psychoses—the pure and the combined psychoses. This classification is very similar to that of Spitzka in appearance, but it is found that Dr. Siemens is fettered by the conceptions that mania, melancholia, and constitutional insanity (verrücktheit) are the only pure types, all the others being these types modified by the existence of degeneration; of developmental changes; of cerebral disease; of cardiac, pulmonary, and renal disease; of acute and chronic infectious disease; by the co-existence of hysteria and the neuroses; by their etiology, etc.; by presence of conditions like pregnancy, the menopause, etc. While the great value of this principle as a point of departure for classification cannot be denied, Dr. Siemens' preconceived ideas about mania, melancholia, and constitutional insanity seriously interfere with the proper use of the same.

The Blood of the Insane.—Seppilli concludes (Revista Sperimentale di Freniatria, Anno x Fasc. i and ii) first: That in the early stages of insanity there is frequently noticed a scarcity of the red blood globules as well as of hæmoglobin. Second: The degree of hypoglobulia and scarcity of hæmoglobin varies between very wide limits. Third: These conditions occur more frequently, and to a greater degree, among females than males. Fourth: These conditions are much less frequently noticed in pellagrous than in the other forms of insanity. In melancholia and conditions of depression the lack of globules and hæmoglobin is well marked. In mania the normal condition is present. Fifth: Diminution of hæmoglobin is more frequent in insanity, than scarcity of blood globules. Brancaleone has found hypoglobulia in all cases of insanity examined (mania, melancholia, dementia, epilepsy, and paretic dementia).

TEMPERATURE IN THE INSANE.—Tamburini (Revista Sperimentale di Freniatria, Anno x) finds that the lowest temperature occurs in epileptics, next in acute mania, next in idiocy, melancholia, pellagrous melancholia, dementia, and stuporous insanity.

AUTOPSY-DIAGNOSIS OF INSANITY.—Dr. John Bowen reports (Archives of Medicine, April, 1884) the case of a patient who entered the Kings Co. Hospital for the Insane, calling on the "Mother of God." She refused food and was agitated. The day following admission the patient was noticed to be deeply jaundiced. She died in three days. On autopsy the "vessels of the dura were found to be deeply engorged. The pia was normal, as also was the cerebral substance. The ventricles were full of yellow fluid." Dr. Bowen states that "the autopsy decisively revealed that the deceased was not insane." When it is recollected that in the immense majority of acute cases of insanity lesions of any kind are wanting, the audacity of such an assertion surprises one.

PARETIC DEMENTIA FROM LOCOMOTOR ATAXIA.—Dr. S. V. Clevenger (Medical Fournal and Examiner, May, 1884) reports the case of a twenty-eight-year-old man who suffered from locomotor ataxia for five years; during the last three of which, delusions of persecution appeared. Latterly, symptoms of paretic dementia developed. The question arises whether the paretic dementia was really due to the extension of the pathological process upward, or to continued irritation of the vaso-motor centres in the medulla. The types of melancholia which result in the course of locomotor ataxia are due to a temporary vaso-motor disturbance, and it is exceedingly probable that the repeated occurrence of these tends to produce that vaso-motor instability which is the essential pathological element of paretic dementia.

PSYCHOSES FROM OPHTHALMIC OPERATIONS.—Dr. Schnabel erichte des Naturwissen. Medic. Vereins in Innsbruck, (Berichte des Jahrgang xiii.) reports that in twelve cases out of 183 operated on for cataract, psychical symptoms presented themselves. Of these cases ten were men and two women, and were between sixty-six and eighty-three years old. In most cases repetition of the operation (the right and left eyes were alternately operated) caused a reappearance of the psychical disturbance. This began in two cases on the first day after the operation; in four cases, two days after the operation; in two cases, three days after the operation; in two cases, four days after the operation; and in two cases, seven days after the operation. The affection lasted from one to four days, and the symptoms were most marked at night. In the lighter types the patients were restless, slightly irritable, and inclined to run away. The patients in the more decided cases showed mental confusion, did not know where they were, went into strange beds, were obstinate and violent and at times The symptoms visual and auditory hallucinations were present. described are suspiciously like those of senile insanity, and it would seem to be an open question whether the ophthalmic operations had much to do with the matter. It is, however, not impossible that senile tendencies held in check by the patients displayed themselves after the operations.

CRIMINAL HEREDITY .- Dr. U. P. Stair (Fournal of the American Medical Association, 1884) says. First: That ignorance is not a necessary cause of vice; that the amount of wrong-doing, as a result of ignorance, is infinitely small when compared with that indulged in from a wilful disregard of the moral code. Second: That at the present stage of investigation of cerebral pathology, it is scarcely to be expected that any thing but negative results would follow any serious effort to demonstrate a physical basis for vice in the brain, by the use of the scalpel and microscope. Third: Following upon this, and in perfect harmony with it, observation and experience fail to establish the claim that vice and crime are qualities capable of being transmitted by heredity to any such extent as to constitute a distinct and definite class in human society; and, above all, that there is a moral force in the social world, to which, in its sphere, heredity is wholly subservient, which is as positive and potent in its influence as that of gravitation in the physical universe, and he who would teach sociology and ignore the former, is as unsafe a leader to follow as he would be who should attempt to teach physics and ignore the latter. Now when it is recollected that Dr. Stair has had no chance of observing facts for himself, and that he is totally ignorant of the researches of Ferri, Kräpelin, Lebon, Laccasagne, Lombroso, Bruce Thompson, and all who have studied criminality from a clinical standpoint, the audacity of such a priori con-J. G. KIERNAN, M.D. clusions becomes apparent.

## e.—THERAPEUTICS OF THE NERVOUS SYSTEM.

PARALDEHYDE AS AN HYPNOTIC AND SEDATIVE.—Favorable reports continue to be made as to the value of paraldehyde as an hypnotic. Dr. Th. Benda expresses himself favorably as a result of his experience with it in thirty-four cases, embracing various forms of insanity. Of these cases sleep was produced with doses not exceeding four grammes in twenty-four cases, though in seven cases the effect quietly passed off, and it was found necessary to rapidly increase the dose. The effect on the disease itself was very limited, a beneficial effect being obtained in only a few cases, while one or two seemed to be made worse. Disagreeable symptoms were produced in a few cases. The drug is principally eliminated by the lungs. The appetite in some cases was improved, and in no cases diminished.

The paraldehyde was subcutaneously injected in two cases. The injections caused pain, and in one case profound collapse, and were consequently abandoned. B. concludes that in many cases paraldehyde can be given and with good effect; that it has the advantage over morphia and chloral in being far safer, its ill effects being disagreeable rather than dangerous. It has the disadvantage, in common with other drugs, that the dose must be constantly increased.—Neurol. Centralbl., No. 12, 1884.